

What is claimed is:

5 1. A gas-discharge display apparatus utilizing at
least one of neon and helium gases to generate gas discharge
for exciting three kinds of fluorescent materials having
different light colors to emit light for displaying a color
image, wherein the apparatus includes an optical filter that
is an element overlapping the entire screen, being disposed
in front of gas discharge space for selectively absorbing
10 light having wavelength equal to that of light emission of
the gas, and the optical filter has characteristics in which
the transmittance T_{585} at the wavelength of 585 nanometers
is smaller than the transmittance T_{450} at the wavelength of
450 nanometers and the transmittance T_{620} at the
15 wavelength of 620 nanometers.

2. The apparatus according to claim 1, wherein the
optical filter has characteristics in which the wavelength
of peak absorbency in the visible light wavelength range has
a value within the range of 550 to 620 nanometers.

20 3. A gas-discharge display apparatus utilizing at
least one of neon and helium gases to generate gas discharge
for exciting three kinds of fluorescent materials having
different light colors to emit light for displaying a color
image, wherein the apparatus includes an optical filter that
25 is an element overlapping the entire screen, being disposed
in front of gas discharge space for selectively absorbing
light having wavelength equal to that of light emission of
the gas, the optical filter has characteristics in which
first and second peak absorbencies exist in the visible
30 light wavelength range, the wavelength of the first peak

absorbency has a value within the range of 550 to 620 nanometers, and the wavelength of the second peak absorbency has a value within the range of 500 to 550 nanometers.

4. A gas-discharge display apparatus utilizing at least one of neon and helium gases to generate gas discharge for exciting three kind of fluorescent materials having different light colors to emit light for displaying a color image, wherein the apparatus includes an optical filter that is an element overlapping the entire screen, being disposed in front of gas discharge space for selectively absorbing light having wavelength equal to that of light emission of the gas, the optical filter has characteristics in which first and second peak absorbencies exist in the visible light wavelength range, the transmittance T_{585} at the wavelength of 585 nanometers is smaller than the transmittance T_{450} at the wavelength of 450 nanometers and the transmittance T_{620} at the wavelength of 620 nanometers, and the transmittance T_{525} at the wavelength of 525 nanometers is smaller than the transmittance T_{450} .

5. The apparatus according to claim 1 or 4, wherein the transmittance T_{585} is smaller than 0.7 times the transmittance T_{450} .

6. The apparatus according to claim 4, wherein the transmittance T_{585} is smaller than 0.7 times the transmittance T_{450} and is smaller than the transmittance T_{525} .

7. The apparatus according to claim 1, wherein the optical filter is made as a component separate from a display device having the gas discharge space, and is disposed in front of the display device.

8. The apparatus according to claim 7, wherein the optical filter is made of a film having said characteristics.

9. The apparatus according to claim 1, wherein the optical filter is in contact with the front surface of a transparent substrate making up the screen.

10. The apparatus according to claim 1, wherein the optical filter is made of an organic resin in which a substance absorbing light of a specific wavelength is dispersed.

11. The apparatus according to claim 1, wherein a non-glare layer is disposed in front of the optical filter.

12. A gas-discharge display apparatus utilizing at least one of neon and helium gases to generate gas discharge for exciting three kinds of fluorescent materials having different light colors to emit light for displaying a color image, wherein the apparatus includes an optical filter that is an element overlapping the entire screen, being disposed in front of gas discharge space for selectively absorbing light having wavelength equal to that of light emission of the gas, the optical filter has characteristics in which first and second peak absorbencies exist in the visible light wavelength range, the wavelength of the first peak absorbency has a value within the range of 580 to 600 nanometers, the wavelength of the second peak absorbency has a value within the range of 500 to 550 nanometers, the transmittance of the optical filter at the first peak absorbency is smaller than 0.5 times the average transmittance in the blue wavelength range, and the average transmittance in the green wavelength range is larger than

the transmittance at the first peak absorbency and is smaller than the average transmittance in the blue wavelength range.

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13. The apparatus according to claim 12, wherein the optical filter is made as a component separate from a display device having the gas discharge space, and is disposed in front of the display device.

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14. The apparatus according to claim 12, wherein the optical filter is made of a film having said characteristics.

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15. The apparatus according to claim 12, wherein the optical filter is in contact with the front surface of a transparent substrate making up the screen.

16. The apparatus according to claim 12, wherein the optical filter is made of an organic resin in which a substance absorbing light of a specific wavelength is dispersed.

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17. The apparatus according to claim 12, wherein a non-glare layer is disposed in front of the optical filter.

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